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ABSTRACT

This study investigated the oral and written expression of 16 learning disabled students in a special education alternative high school. Students were offered two prompts: one written, one verbal. Written and oral responses were scored according to a rubric similar to that used for the New York State High School English Regents Examination. Participants in this study seemed to have an easier time generating words in the oral format, but the quality of oral responses was not always better. In general, students performed poorly in both oral and written formats. In some cases there was a noticeable difference in the quality of the responses, and these were considered to be students who should be allowed to exhibit their knowledge in alternative formats. The weakness in written and oral skills of these students calls into question the communication skills students are being taught in special education. Rubric is appended. (Contains 13 references.) (SLD)



A STUDY OF ORAL AND WRITTEN EXPRESSION ABILITIES OF ADOLESCENTS WITH LEARNING DISABILITIES

By

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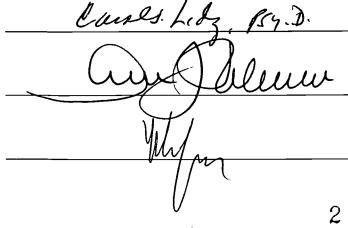
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Abstract

This study examined the difference between learning disabled high school students ability to respond to prompts orally or in writing. The results indicated that although quantitatively the oral responses were much greater, qualitatively they were equal. Students exhibited both weak writing and verbal skills. Further research is needed in the area of writing, especially with high school students.



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Introduction

There is a current increase in educational standards both in New York State and across the country. The standards provide for increased testing in English Language Arts in fourth, eighth and eleventh grades. This places a tremendous burden on all students, but especially those who exhibit writing difficulties. In addition to this, all academic subject areas require the use of writing in order to determine competence. Students are asked to write essays to demonstrate their knowledge of subject matter. Not only is it sufficient to show that they understand and are able to discuss and express their ideas verbally; it is also necessary to demonstrate their competencies in writing. Often times it appears as if the student has an understanding of a subject area but is somehow unable to communicate this knowledge in writing. By the time a student has reached high school it is difficult to determine whether the exogenic or the endogenic factors contribute to his writing difficulties.

Difference between written and spoken language

According to Mapou(1985), language functions can be divided into two key areas. The first spoken,includes comprehension (single word, syntax) and production (speech, repetition, naming single word, and discourse). The second written language includes reading (letter and word recognition, comprehension) and writing (spelling, mechanics dictation, discourse). The areas can further be divided into those that reflect language input and language output. Written language differs from spoken language in that written language usually requires formal teaching. The skills necessary for spelling and writing are late in their acquisition. Learning to write can be considered a complex task and spelling must be learned and appropriate motor control is necessary to form the letters properly (McCarthy,1997).

Vygotsky recognized this difference when he wrote: "The essential difference between written and oral speech reflects the difference between two types of activity,



one of which is spontaneous, involuntary and nonconcious, while the other is abstract, voluntary and conscious. The psychological functions on which written speech is based have not even begun to develop in the proper sense when instruction in writing starts. It must build on barely emerging, immature processes." (1986)

Nevertheless, according to Gerber (1993), there are certain similarities in oral and written language. They each involve the use of arbitrary symbols. They are both used as forms of communication that include vocabulary, syntax grammar and discourse structure. A sound system is used to produce oral language as opposed to written language which uses an orthographic system.

Luria (1973) explained that oral expression started with an intention or plan, which was then recoded into a verbal form and molded into speech expression. The frontal lobes involvement is essential for the creation of active intentions, or planning. When the motive of the expression is absent, and no plan can actively be formed, there can be no spontaneous active speech. There is a transition from the general plan to narration. This requires that the plan is recoded into speech. This process is assisted by internal speech which has a predictive structure. The process of transition from plan to narration is achieved easily by normally developing individuals.

Vygotsky (1986) pointed out that oral speech differed from written speech in both structure and function. Written speech is a separate linguistic function, requiring a high level of abstraction. When a child learns to write, he must separate himself from the sensory aspect of speech. Words are replaced by images of words. As algebra is more difficult than arithmetic, changing sounds into written signs is also more difficult than speaking. The developmental course for the writing process is not the same as that of oral speech. Most children have little motivation to learn to write when it is taught. They feel no need for its use. The motives for writing are more abstract and more removed from a child's immediate needs for speech.



Difficulty in identifying writing difficulties

Interest in reading and the development of theories and models for reading have a history of well over thirty years. However, written expression has not been studied or investigated as have the other academic domains. Two questions are usually asked: is writing a developmental progression from language ability(listening and speaking) to reading and writing? and, is written expression just a variant of oral expression? Despite the efforts of Vygotsky and Luria, few models have been developed to examine the writing process over the span of development (Fryberg 1997;Hooper et.al,1994;Berninger,1991,1994,1997;Stein,Dixon &lsaacson,1994).

Another problem is deciding upon an operational definition of writing. Hooper et al. (1994) attributed this difficulty to the complexity of the writing process. Research on written language suggests that most, if not all, students with learning disabilities, have problems with some component of writing including, handwriting, spelling, written syntax, vocabulary, or written discourse. What is important is that not all aspects of written expression need to be impaired in any one child in order to create a problem with written expression. Given the fact that the specific components of written language expression continue to be debated, an operational definition will not be an easy goal to achieve.

Berninger et al.(1991) cited the lack of a "theory-based quantitative instrument" to diagnose specific writing disabilities, as the reason for the lack of research on writing disabilities. They further suggested that, considering the large numbers of children referred especially after fourth grade for writing problems, this lack of a theory-based instrument is significant.

According to Stein, Dixon and Isaacson (1994) writing is difficult for most learners and, for those with learning disabilities, it is a particularly serious struggle. There is a pervasiveness of writing difficulties among all students. They further suggested that it is difficult to separate students with writing disabilities from regular students.

McCarthy (1997) discussed early research that suggested that ,in the earliest accounts of writing disorders, two different approaches were taken. One was that



written and oral expression exist on a continuum. According to this view, the processes of both oral and written language were interrelated, but written language is more vulnerable. For example, patients with aphasia (acquired disorder of language) were expected to show greater impairment in written language than in their speech. In this model, the motor skills necessary for writing were believed to be directly related to internal language processes. The second approach was that oral and written language were independent processes. This position was first taken by Ogle, who used the term agraphia to describe acquired disorders of writing. He based his findings on the fact that although most patients that he saw exhibited both aphasia and agraphia, there were patients who exhibited one without the other. These dissociations led him to believe that there was a separate writing center. Exner supported the view that there was a separate center which dealt with the motor skills involved in writing. The view that separated those with writing problems into language impairment or specific disorder of motor skill tends to be oversimplified.

Neuropsychological aspects of writing

Distinctions among disorders of writing tend to take different forms. For example, there are spelling deficits that can be broken down into "linguistic" or central spelling deficits that reflect impairment in either a sound based or a vocabulary based spelling "route". Disorders of spelling assembly may occur subsequent to these central processes, but before the writing action takes place. Disorders of writing can be viewed as highly specific forms of apraxia. They dissociate from other impairments of voluntary action and have been thought of as implicating a specific set of stored motor patterns for writing.(McCarthy 1997)

According to Luria(1973), Agraphias can be classified into subgroups: (1) those associated with aphasias;(2) those associated with severe reading disability;(3) "pure" agraphia with no language impairment which may be a result of impaired phonemic hearing;(4) apraxic agraphia, where a disturbance of normal neuromuscular patterns interferes with the writing process and (5) spatial disorders in writing. They can be



grouped into two broad types: (1) the apraxic agraphias with little or no linguistic disorder, and (2) the agraphias with a marked degree of language disturbance.(Gaddes&Edgell 1994)

Writing is complex and many brain systems are involved: fine motor, orthographic coding, orthographic motor integration, working memory, reading and verbal reasoning, all of which could contribute to developmental output failure(Berninger, 1994).

According to Fryberg (1997), there are four functional systems that are involved in writing. Recognizing, analyzing, and phonemic attention to the order of words is done by the acoustic system. The sensorimotor system auditorially perceives phonemes and motorically translates them into graphemes that represent the sounds. Writing can develop with practice into smooth motoric movements. The person writing is able to discriminate and respond to differences in letters with the visual motor system. Integrity of the frontal lobe is necessary for the system that assists with intention and attention This includes sustained mental effort that allows completion of writing tasks, reflection, planning, temporal control(the ideas, spelling and mechanics of writing), and self-monitoring (the ability to detect and correct errors during and after writing).

Diagnosing writing disorders

Writing disorders can be understood as deficits in the underlying processes required for writing (e.g., oral receptive and expressive language, reading ability, selective attention, verbal concept formation, reasoning, problem solving, verbal categorizing, learning strategies, and the ability to create nonverbal reality.(Gaddes&Edgell,1994)

Berninger et al(1997) proposed a model for differential diagnosis of writing disabilities. This model claims that writing disabilities are related to one of the following areas: neuropsychological processes, linguistic processes or cognitive processes. This model enables school psychologists to develop appropriate interventions based on the nature of the writing problem.



Current Needs of School Psychologists

As school psychologists, we need to be able to determine whether a student's writing difficulty is a language based problem (does the child also exhibit problems in oral expression), or if the problem involves one of the aspects specifically involved in writing. This is important because in order for school psychologists to develop appropriate strategies and interventions to address the issues, they need to know the nature of the problem.

Currently, there are few tools and lack of expertise among school psychologists to diagnose writing disabilities. As such, writing disabilities are often left unaddressed yet account for weak school performance in all areas. It would be useful for school psychologists to be able to pinpoint a student's area of weakness in the writing process and whether or not this weakness is specific to writing or exists as a general disability. In this way the classroom teacher could work with the students more appropriately through areas of strength.

This study is designed to measure whether a student is able to express himself in writing or orally. The knowledge gained will help the school psychologist develop strategies for classroom teachers to work with students areas of strengths and weaknesses in the writing process.

Method

Participants

20 high school students ages 14-18 (mean=16.7 s.d.= 1.24) currently in a special education alternative high school were asked to participate. 10 males and 6 females.13 whites and 6 blacks. 2 freshman, 5 sophomores, 4 juniors and 5 seniors. The socioeconomic backgrounds varied greatly. The student's asked to participate were classified by the Committee of Special Education(CSE) in their school districts as being learning disabled. The majority of student's in the school are classified by their school districts CSE primarily as Emotionally Disturbed or Other Health Impaired



(Attention Deficit Hyperactivity Disorder). The school is considered to be a center based program as it is not affiliated with any of the school districts which refer the students to the program. Students all have average to above average intelligence and will earn either a Regents or Local Diploma upon graduation. Students were treated in accordance with "Ethical Principles of Psychologists and Code Conduct" (American Psychological Association, 1992)

Materials

Two story starters (prompts) were chosen. The first "If I could create the ideal person..." The second "One time I got really mad..." Each student was given one of the prompts to respond to orally and one to respond to in a written format. The oral presentation was tape recorded and then transcribed.

Design and Procedure

The participants were divided so that almost half of them would get the written prompt first and the others would get the verbal prompt first. Each participant met with the examiner alone for approximately 10 minutes in order to complete the protocols. Two weeks separated the time that the participant would have between the first and second administration. Participants would write the answer to the written prompt on a paper. On the verbal prompt their answers were tape recorded and then transcribed on to paper. The students were given three minutes to respond to each prompt after first having a minute to think. Those that responded orally were tape recorded and this was then transcribed. Written and oral samples were scored according to a rubric. (see appendix a) This rubric is similar to one that is used for the New York State high school English Regents. Both samples were scored by a dually certified English/Special Education teacher who has experience in grading English Regents. A t-test for paired samples was conducted. An analysis of the data was conducted.



Two t-tests for paired samples were conducted. N=16 The first analyzed the quantity of words written as opposed to spoken. The second analyzed the works based on the rubric. The results of the first t-test were significant.(m=135.18 s.d.=152.9 s.e.m.=38.2 t=3.536) When asked to present ideas in an oral format the students were able to quantitatively generate much more then they were able to do in writing. When asked to write their responses most students exhibited much more difficulty quantitatively. However, according to the second t-test, the quality of the works did not differ significantly. The rubric scores on both oral and written work showed no significant difference.

Discussion

It is believed that there are certain students who are capable of demonstrating knowledge in an oral/verbal format, who are not able to put their knowledge into writing. These students suffer in the educational system because they are lacking something that enables them to be able to write. If they were tested verbally, given a scribe to write for them, or perhaps use a voice- activated computer they might fare much better in an academic environment. However, because it is expected that all students who are planning to graduate from high school will leave school with the ability to write well, alternative methods of demonstrating knowledge are not always an option. Such accommodations are usually made after sufficient proof and documentation of a severe writing disability are secured. If students were given the opportunity to operate from their strengths rather than from their weaknesses, they would probably have eventual success with the writing process. This is because, once they feel confident in their ability to demonstrate their knowledge in an alternative format, the pressure from writing would be relieved. If pressure were alleviated, it is possible that teaching of writing would become somewhat easier. A teacher would be dealing with the disability or difficulty, not the resistance.

Participants in this study seemed to have an easier time generating words in a



verbal format rather than in a written format. However, the quality of the oral responses was not always better. This could have resulted from a host of factors. Although writing could be a problem for the students and they find it difficult to generate ideas, they are equally stymied orally. Some of the students in the study have been in the special education system for more than a few years. It is possible that they were not taught the skills necessary for writing. They are also limited verbally. Therefor, when asked to present the information in a verbal format they experienced difficulty in terms of content. Although they could generate a lot of words it did not enhance the quality of their work. Most students exhibited problems in both formats. These students difficulties are probably language based and they are manifested in weak performance in both areas.

The weakness in both written and verbal skills is disconcerting. It leads one to wonder about the difficulty that learning disabled students have with communication skills. Are they able to effectively communicate in any medium?

In a few cases there was a notable difference in both the quantity and the quality of either the written or oral presentation. These are the students who need to exhibit their knowledge in alternative formats. Some students feel comfortable to write while others prefer the oral presentation. Not every student is a willing participant in the writing process. Sometimes by capitalizing on their strengths they can be won over and eventually taught the skills necessary to write effectively.

The small sample size makes it difficult to know if the same results would be found in the general population. Since the study was done with students who are already classified as special education students it would be interesting to see whether or not the same results would occur in a regular high school.

More research is needed in the area of writing, and especially in the area of remediating high school students in writing. There is a dearth of information on successful writing programs in the high schools. Most writing research addresses the elementary school child. However, the problem becomes how to remediate a high school student who has never mastered the writing process. Is it ever possible at that point to catch up with his peers? Only future research and longitudinal studies will tell.



Appendix A :Rubric

Quality	6	5	4	3	2	1
Quality	Responses at this level:	Responses at this level:	Responses at this level:	Responses at this level:	Responses at this level:	Responses at this level:
Meaning:the extent to which the response exhibits sond understanding and analysis of the task	provide an interpretation of the task which is insightful	provide an interpretation of the task which is thoughtful	provide an interpration of the task which is reasonable	provide an interpretation of the task which is simple	provide an interpretation of the task which is confused	provides minimal or no interpretation of the task
Development: the extent to which ideas are elaborated	develops ideas clearly and fully	develops ideas clearly and consistently	develops some ideas more full than others	develops ideas briefly	incomplete or largely undeveloped hinting at ideas	minimal no evidence of development
Organization: the extent to which response exhibits direction, shape and coherence	maintains focus exhibits a logical coherent structure through skillful use of appropriate devices and transitions	mainains focus exhibits a logical sequence of ideas through use of appropriate devices and transitions	maintains focus exhibits a logical sequence of ideas but may lack internal consistency	establishes but may fail to maintain focus exhibits a rudimentary structure but may lack some inconsistencies	lack an appropriate focus but suggest some organization, or suggest a focus but lack organization	shows no focus or organization
Language Use: the extent to which the response effectively uses words, sentence structure, and sentence variety.	stylistically sophisticated, using language that is precise and engaging-vary structure and length of sentences to enhance meaning	uses language that is fluent and original- vary structure and length of sentences to control rhythm and pacing	uses appropriate language- occasionally makes effective use of sentence structure or length	uses basic vocabulary- exhibits some attempt to vary sentence structure or length for effect, but with uneven success	uses language that is imprecise or unsuitable- reveals little awareness of how to use sentences to achieve effect	uses language that is inchoherent or inappropriate
Conventions: the extent o which the response exhibits conventional spelling, punctuation, paragraphing, capatalization, grammar and usage	demonstrates control of the conventions with essentially no errors, even with sophisticated language	demonstrates control of the conventions, exhibiting occasional errors only when using sophisticated language	demonstrates partial control ,exhibiting occasional errors that do not hinder comprehension	demonstrates emerging control, exhibiting occasional errors that hinder comprehension	demonstrates a lack of control, exhibiting frequent errors that make comprehension difficult	mimimal, making assessment of conventions unreliabl- may be illegible or not recognizable as English



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